

Meeting Summary from Mercury Workgroup Goals Subcommittee Meeting

August 15, 2006

In attendance:

John Whitehead, DWQ
Scott Everett, DERR
Rob Baskin, USGS
Pat Lambert, USGS
Amy Dickey, DWQ
Tim Wagner, Sierra Club
Jennifer Cummings, Facilitator

The subcommittee identified its role and purpose to operate as a representative subset of the larger workgroup that can act as a catalyst in developing concrete and detailed action plans to propose to the larger workgroup. In addition to those listed in attendance above, it was suggested that the subcommittee include a representative from the Division of Air Quality and the Department of Health.

The subcommittee will provide regular and open communication with the larger workgroup by providing minutes and progress reports via email. John Whitehead will act as the liaison between the groups in this respect.

The subcommittee will also provide an oral report at the larger Mercury Workgroup meetings. For the next meeting on 9/28/06, Tim will present the subcommittee's report.

Tim will also contact an individual in New Mexico who has overseen a similar statewide mercury assessment. He will provide a report on his findings at the next meeting.

The Mercury Workgroup Sub-committee has identified three areas or phases through which to address the issue of mercury levels in Utah. The three areas (or phases) are:

- 1. To Identify Human Risks:** investigate pathways to human exposure with a primary focus on fish and waterfowl consumption

ACTION ITEM:

Develop systematic monitoring program for measuring Hg levels in fish and waterfowl.

WHO: A team comprised of representatives from the following agencies is suggested: DWR, DWQ, FWS, TU, DU, and USGS

WHEN: Suggested target dates:

Begin by October 1, 2006 (meet initially with subcommittee to clarify goals)
Complete by December 31, 2006

The Sub-committee recommends that the above-mentioned team develop a protocol for measuring mercury in fish and waterfowl with the following considerations:

- Statewide sampling determined by
 - Human use/popularity
 - Regional representation
- Collection protocol
- Handling protocol
- Analytical protocol
- Quality Assurance protocol

2. Source Delineation

Concurrently and/or following the “Phase I” investigation, the subcommittee recommends further investigation of source delineation by following a tiered approach to identify anthropogenic and natural mercury sources.

Potential anthropogenic sources may include:

- Legacy mining
- Air sources
 - power plants
 - Other
- Industry

Potential natural sources may include:

- Geologic
 - Volcano
- Sediment
- Water column

Outline of Tiered Approach

After a hotspot is initially identified by high mercury concentrations in fish tissue, a tiered approach will be used to attempt to delineate the source of mercury.

Tier 1: Resample the watershed more extensively to validate the initial results and start to assess extent of mercury contamination. Select multiple biota to help determine what the source and pathway might be. This step is appropriate before more costly steps are taken in tier 3.

Tier 2: Complete a watershed analysis, identifying potential anthropogenic and natural sources of mercury in the area. This is a fairly cost effective way to try delineating the source of mercury.

Tier 3: Conduct intensive sampling that follows transport mechanisms. This could include sediment core sampling, clean water column sampling, and studies of jet streams and atmospheric deposition. This tier utilizes more financial and human resources than the first two, but might paint a more accurate picture of what's happened/happening in the watershed in terms of mercury deposition.

3. Source Minimization

Minimization action items will follow once source delineation is established.